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Hirofumi Ando

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9344

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Sughrue Mion Zinn Macpeak & Seas
2100 Pennsylvania Avenue NW
Washington, DC 20037-3202

EXAMINER

PARK, CHAN S

ART UNIT

PAPER NUMBER

2622

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9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/613,426

Applicant(s)

ANDO, HIROFUMI

Examiner

CHAN S PARK

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 3/8/04, and has been entered and made of record. Currently, **claims 1 and 4-21** are pending.

Response to Arguments

2. Upon review of the reference of Furukawa (U.S. Patent No. 6,029,238), which was cited in the Office action dated 10/27/03 under 35 U.S.C. 102(e), as anticipating **claims 1-7, 9-13 and 15**, the examiner notes that the reference can still be interpreted as anticipating the claims, as currently amended.

Particularly, as amended, **claims 1, 4, 9, 12 and 16** now require "... transfer[ring] print data from the host to the printer by a plurality of logical channels for causing ... second data control means via normal communication, thereby providing a similar copy to the original image." Furukawa discloses a first data control means (communication controller 70 in conjunction with main controller 61 in fig. 4) for transferring print data from the host to the printer by a plurality of logical channels. Referring to col. 6, lines 57-65, it is noted that the print data received by the first channel 72 from the host is transmitted to the second channel (font memory 62) and then lastly transmitted to the third channel (print process controller 65). Thus, the print data is transferred from the host to the printer by plurality of logical channels. Additionally, Furukawa discloses a second data control means (image reader controller 73 in conjunction with main controller 61) for transferring the converted print data to the printer via normal communication (col. 6, lines 41-56 & col. 7, lines 21-29). Note that the Office interprets

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the normal communication as the communication that is different from the network communication (the communication between the host and the copier). Also, read col. 9, lines 18-27.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *responding to a plurality of requests from a plurality of devices simultaneously*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

3. Applicant's arguments filed 3/8/04 have been fully considered but they are not persuasive.

With respect to claim 6, Furukawa inherently discloses the data flow regulation means for asynchronously regulating data flow between the host and the printer, data flow between the scanner and the host, and data flow between the scanner and the printer. The Office interprets in such a way since a printer cannot perform printing process for two distinct print data at the same time. Thus, data flow between the scanner and the printer must be halt when the printer is printing the data received or receiving from the host. Additionally, Furukawa discloses an input device to control the data flow by switching between the printer mode and the copier mode (col. 7, lines 30-33).

Note that the Office used the submitted dictionary to define the word "asynchronous" which was interpreted as "NOT occurring or existing at the same time."

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With respect to claim 13, Examiner still believes that previously cited col. 9, lines 3-13 reads on to the limitation of the claim. Specifically referring to lines 3-7, the host sends requests to the copier, the copier interprets the requests or commands, and printer manager 305 sends status information according to the requests. Thus, it performs or executes a sending of the status information instead of the printing by the printer in response to an interpretation result.

With respect to claim 15, as noted above in claim 15, the host sends requests to the copier, the copier interprets the requests or commands, and printer manager 305 sends status information according to the requests. Also, the communication between the host and the copier is packetized as it is a conventionally well-known method in the digital network printer.

4. Therefore, the rejection of claims 1 and 4-20, as cited in the Office action dated 10/27/03 is maintained and repeated in this Office Action.

5. The newly added claim 21 is also rejected under 35 U.S.C. 102(e) as being anticipated by Furukawa.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9-13, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Furukawa U.S. Patent No. 6,029,238.

6. With respect to claim 1, the Furukawa reference discloses a data controller (main controller 61 in fig. 4) comprising:

first data control means (communication controller 70 in conjunction with main controller 61 in fig. 4) to be connected (common data bus 71) to a host, a printer, and a scanner for controlling transfer of data between the host and the printer and transfer of data between the scanner and the host (col. 7, lines 11-29); and

second data control means (image reader controller 73 in conjunction with main controller 61) for reading and original image by the scanner without an intervention of the host, converting the original image into data that can be interpreted by the printer, and transmitting the converted data to the printer (col. 6, lines 49-53),

wherein said first data control means can transfer print data from the host to the printer by a plurality of logical channels for causing the printer to execute normal print, and the printer can be caused to print the converted data transmitted by said second

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data control means via normal communication, thereby providing a similar copy to the original image (col. 7, lines 11-20).

Referring to col. 6, lines 57-65, it is noted that the print data received by the first channel 72 from the host is transmitted to the second channel (font memory 62) and then lastly transmitted to the third channel (print process controller 65). Thus, the print data is transferred from the host to the printer by plurality of logical channels. Additionally, note that the Office interprets the normal communication as the communication that is different from the network communication (the communication between the host and the copier). Also, read col. 9, lines 18-27.

It can be easily noted from the reference that the digital copier 15 includes a printer for printing image data and a scanner for scanning an original image to be printed, wherein the digital copier is connected to a host computer for data transmission.

7. With respect to claim 4, the Furukawa reference discloses a data controller to be connected to a host, a printer, and a scanner, said data controller having (i) a data flow control function (communication controller 70 in conjunction with main controller 61 in fig. 4) for controlling transfer of data between the host and the printer (col. 7, lines 11-20) and transfer of data between the scanner (image reader manager 308 in col. 13, lines 57-67) and the host using a plurality of logical channels (col. 6, lines 57-65), and (ii) an image data read and conversion function for reading image data by the scanner without an intervention of the host, converting the image data into data that can be interpreted by the printer, and transmitting the converted data to the printer using normal communication for printing a similar copy to an original image as a local copy (col. 7, lines 11-20),

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said data controller comprising:

means for receiving a packet (col. 8, lines 6-7) of the image data read from the scanner, transmitting the packet to the host, and transmitting the packet to the host, and transmitting packet data received from the host for controlling the scanner to the scanner (col. 12, lines 38-43);

status retention means for inputting and retaining a packet indicting a status of the printer from the printer (col. 9, lines 3-14);

means being responsive to an inquiry about the status of the printer from the host for receiving the packet indicating the status form said status retention means and transmitting the packet to the host and transmitting packet data received from the host for controlling the printer to the printer (col. 9, lines 36-61 & col. 10, lines 59-63); and

conversion-to-command means for converting image information input from the scanner without the intervention of the host into a command that can be interpreted by the printer (col. 6, lines 49-53).

Referring to col. 6, lines 57-65, it is noted that the print data received by the first channel 72 from the host is transmitted to the second channel (font memory 62) and then lastly transmitted to the third channel (print process controller 65). Thus, the print data is transferred from the host to the printer by plurality of logical channels.

Additionally, note that the Office interprets the normal communication as the communication that is different from the network communication (the communication between the host and the copier). Also, read col. 9, lines 18-27.

It can be easily noted from the reference that the digital copier 15 includes a printer for printing image data and a scanner for scanning an original image to be printed, wherein the digital copier is connected to a host computer for data transmission.

8. With respect to claim 5, Furukawa further discloses the status retention means for inputting and retaining the printer status from the printer periodically (col. 10, lines 8-19).

9. With respect to claim 6, Furukawa inherently discloses the data flow regulation means for asynchronously regulating data flow between the host and the printer, data flow between the scanner and the host, and data flow between the scanner and the printer. The Office interprets in such a way since a printer cannot perform printing process for two distinct print data at the same time. Thus, data flow between the scanner and the printer must be halt when the printer is printing the data received or receiving from the host. Additionally, Furukawa discloses an input device to control the data flow by switching between the printer mode and the copier mode (col. 7, lines 30-33).

10. With respect to claim 7, Furukawa further discloses a local copy start (starting copy) switch for making it possible to manually start a local copy (col. 7, lines 34-53).

11. With respect to claim 9, Furukawa discloses a printer for receiving print data from a host and printing the print data and also printing an original image input through image read means contained in said printer (col. 7, lines 11-20), said printer comprising:

a data reception section (communication controller 70);

an interpretation section that can interpret a command proper to said printer (col. 7, lines 15-16); and

an interface unit (common data bus 71) comprising: (i) data flow control means (communication controller 70 in conjunction with main controller 61 in fig. 4) for controlling transfer of data between the host and said data reception section and transfer of data between the image read means (image reader controller 73) and the host using a plurality of logical channel, and (ii) image data read and conversion means for converting image data read from the image read means without an intervention of the host into a command that can be interpreted by said interpretation section and sending the converted command to said data reception section using normal communication (col. 7, lines 11-20),

wherein the print data from the host is received at said data reception section under control of the data flow control means and is interpreted by said interpretation section (main controller 61), then is expanded into image data and the image data is printed, and the command converted by the image data is read and conversion means is received at said data reception section and is interpreted by said interpretation section, thereby expanding into the same image data as the image data and printing the image data, whereby a copy of the original image input through the image read means can be produced (col. 7, lines 21-29).

Referring to col. 6, lines 57-65, it is noted that the print data received by the first channel 72 from the host is transmitted to the second channel (font memory 62) and then lastly transmitted to the third channel (print process controller 65). Thus, the print data is transferred from the host to the printer by plurality of logical channels. Additionally, note that the Office interprets the normal communication as the

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communication that is different from the network communication (the communication between the host and the copier). Also, read col. 9, lines 18-27.

12. With respect to claim 10, Furukawa further discloses the data flow control means that transfers the data by packet communications (col. 8, lines 5-7).

13. With respect to claim 11, Furukawa discloses image data read and conversion means that sends the converted command to said data reception section intact as a command proper to said printer without further converting the converted command into a packet format (col. 7, lines 21-29). The system according to the reference acts as copy machine, which does not necessarily require packetizing of image data. This is inherent since scanning means and printing means are all done in one system.

14. With respect to claim 12, Furukawa discloses a print system comprising a plurality of logical channels (common data bus 71 and network interface 72), wherein data flow between at least host computer and a printer and data flow between the host computer and a scanner are controlled separately using a plurality of said logical channels (main controller 61), and wherein data flow between the scanner and printer is controlled using normal communication. Note that the Office interprets the normal communication as the communication that is different from the network communication (the communication between the host and the copier). Also, read col. 9, lines 18-27.

Furukawa clearly teaches that the communication means among the printer, the scanner, and the host is bi-directional to request and receive the status information. Also, the main controller 61 controls the communication means (col. 7, lines 6-53).

15. With respect to claim 13, Furukawa discloses a data controller to be connected to a host, a printer, and a scanner, said data controller having (i) a data flow control

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function for controlling transfer of data between the host and the printer (col. 7, lines 11-20) and transfer of data between the scanner and the host (col. 9, lines 3-13), and (ii) an image data read and conversion function for reading image data by the scanner without an intervention of the host, converting the image data into data that can be interpreted by a first interpretation section of the printer, and transmitting the converted data to the printer for printing a similar copy to an original image as a local copy (col. 7, lines 21-29),

said data controller comprising:

a second interpretation section having an interpretation capability similar to that of the first interpretation section of the printer,

Wherein, when the similar copy to the original image is printed as the local copy, said second interpretation section interprets a command issued from the host to the printer, and predetermined necessary operation is executed instead of the printer in response to an interpretation result (col. 9, lines 3-13).

Specifically referring to lines 3-7, the host sends requests to the copier, the copier interprets the requests or commands, and printer manager 305 sends status information according to the requests. Thus, it performs or executes a sending of the status information instead of the printing by the printer in response to an interpretation result.

16. With respect to claim 15, Furukawa further teaches that if the command is determined a status request from the host as the interpretation result of said second interpretation section, the predetermined necessary operation is to read the status from the printer and transmit the read status to the host as a packet (col. 9, lines 36-60).

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As noted above in claim 15, the host sends requests to the copier, the copier interprets the requests or commands, and printer manager 305 sends status information according to the requests. Also, the communication between the host and the copier is packetized as it is a conventionally well-known method in the digital network printer.

17. With respect to claim 21, Furukawa discloses a print system comprising data flow between a host computer and a printer, data flow between the host computer and a scanner (communication controller 70 in conjunction with main controller 61 in fig. 4), data flow between the printer and the scanner (image reader controller 73 in conjunction with main controller 61), each of the data flow being independently controlled (asynchronous data flow noted in claim 6), wherein at least data flow between the host computer and the printer, and data flow between the host computer and the scanner are controlled using a plurality of logical channels. Referring to col. 6, lines 57-65, it is noted that the print data received by the first channel 72 from the host is transmitted to the second channel (font memory 62) and then lastly transmitted to the third channel (print process controller 65). Thus, the print data is transferred from the host to the printer by plurality of logical channels.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa.

18. With respect to claim 14, the Furukawa reference discloses all the limitations of claim 13 and it further discloses the packet data communication between the host and the printer.

However, Furukawa does not explicitly disclose if the packet communication can be used in the data transfer between the scanner and the host.

Having known and taught the network digital copier and the method of packet data communication between the host and the printer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use packet communication between scanner and the host. Also, it is well known to packetize a data with the network address for the benefit of transmitting data to the desired destination without losing the data.

19. With respect to claim 16, arguments analogous to those presented for claims 4, 13, and 14, are applicable.

20. With respect to claim 17, arguments analogous to those presented for claim 5, 6, 14, are applicable.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claim 4 above, and further in view of Ohnishi U.S. Patent No. 6,067,169.

21. With respect to claim 8, the Furukawa reference discloses all the limitations of claim 4 but it does not explicitly disclose if the scanner can read a color original image and output YMCK binary image data.

The Ohnishi reference, on the other hand, discloses a digital color copying machines (103, 104) and scanners (109, 110) connected to a host computer for communicating with one another (fig. 1). It further discloses a data controller (interface device 101) having a CPU (second CPU 209) for controlling transfer of data between a printer and a host computer and transfer of data between a scanner and a host computer (col. 3, lines 37-52). It further discloses a digital copier that is capable of sending current status when a status request is requested by the host computer (col. 7, lines 41-48). Furthermore, it discloses a color scanner for reading color original image and outputting YMCK binary image data (col. 4, lines 16-30).

Furukawa and Ohnishi are analogous art because they are from the same field of endeavor that is the digital copier art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the color scanner of Ohnishi with the digital copier of Furukawa.

The motivation for doing so would have been to generate color image copies.

Therefore, it would have been obvious to combine Furukawa with Ohnishi to obtain the invention as specified in claim 8.

Claims 18, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claim 16 above, and further in view of Smilansky et al. U.S. Patent No. 5,339,176.

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22. With respect to claim 18, the modified Furukawa reference discloses all the limitations of claim 16 but it does not disclose a first scanner for reading a color original image and outputting YMCK binary image data and a second scanner for reading a color original image and outputting RGB full color image data.

Smilansky et al. discloses a first scanner (scanner 114 in fig. 1B) for reading a color original image (128) and outputting YMCK binary image data (134) and a second scanner (116) for reading a color original image and outputting RGB full color image data (130).

Furukawa and Smilansky et al. are analogous art because they are from the same field of endeavor that is the color scanner art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the color scanner of Smilansky et al. with the digital copier of Furukawa.

The motivation for doing so would have been to generate color image copies by converting the original into either RGB or YMCK image data. It would have also been to technique and apparatus for calibrating a color-processing device in a color digital copier.

Therefore, it would have been obvious to combine Furukawa with Kitamura et al. to obtain the invention as specified in claim 18.

23. With respect to claim 19, the Smilansky reference further discloses color image data conversion means for receiving the RGB full color image data (130) from the second scanner (116) and converting the image data into the YMCK binary image data (132).

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24. With respect to claim 20, the Smilansky reference fails to disclose data regulation means for discriminating between the YMCK binary image data received from the first scanner and the RGB full color image data received from the second scanner. The reference discloses the direct connection without the intervention of image data flow regulation section. However, in the applicant disclosed drawing, first scanner (400A) and second scanner (400B) have their own transmission lines to the data controller. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the image data generated by the first scanner goes to conversion-to-command section without color image data converter and the image data generated by the second scanner goes to conversion-to-command section via color image converter.

Conclusion

25. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S PARK whose telephone number is (703) 305-2448. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chan S. Park
Examiner
Art Unit 2622

csp
April 21, 2004


EDWARD COLES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600